(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property **Organization** International Bureau





(43) International Publication Date 8 April 2004 (08.04.2004)

PCT

(10) International Publication Number WO 2004/029271 A1

(51) International Patent Classification7: C12N 1/21, 9/02

C12P 17/12,

(74) Agents: KELLER, Günter et al.; LEDERER & KELLER, Prinzregentenstrasse 16, 80538 München (DE).

(21) International Application Number:

PCT/EP2003/010403

(22) International Filing Date:

18 September 2003 (18.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02021623.0

27 September 2002 (27.09.2002)

(71) Applicant (for all designated States except US): DSM IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-2611 TE Heerlen (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HOSHINO, Tatsuo [JP/JP]; 2-18-14 Fueta, Kamakura-shi, Kanagawa-ken, Kanagawa 248-0027 (JP). ICHIKAWA, Keiko [JP/JP]: Marin-terasu-nibankan 201, 3-8-14 Tsujido, Fujiswa-shi, Kanagawa-ken, Kanagawa 251-0047 (JP). TAZOE, Masaaki [JP/JP]; 5-14-22 Yokodai, Isogo-ku, Yokohama-shi, Kanagawa-ken, Kanagawa 235-0045 (JP).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: RECOMBINANT MICROORGANISM FOR THE PRODUCTION OF VITAMIN B6

(57) Abstract: Disclosed is a recombinant microorganism being capable of producing vitamin B6, wherein said microorganism carries extra genes which code for an enzyme combination selected from: i) erythrose 4-phosphate dehydrogenase and 1-deoxy-D-xylulose 5-phosphate synthase; ii) erythrose 4-phosphate dehydrogenase and pyridoxol 5'-phosphate synthase; and iii) erythrose 4-phosphate synthase; and iii) phate dehydrogenase, 1-deoxy-D-xylulose 5-phosphate synthase and pyridoxol 5'-phosphate synthase.